

WHAT IS CLAIMED IS:

1. A deflecting yoke apparatus comprising:

first and second frame coils configured to correct  
a vertical horizontal misconvergence in a screen;

5 first and second main coils which are wound around  
a core and configured to deflect in a vertical  
direction electron beams which have passed through a  
magnetic field generated by the first and second frame  
coils;

10 first and second sub-coils which are wound around  
the core and configured to deflect in the vertical  
direction the electron beams which have passed through  
the magnetic field generated by the first and second  
frame coils;

15 a first deflecting current supply portion  
configured to pass a serriform deflecting current to  
the first and second main coils; and

a second deflecting current supply portion  
configured to supply to the first and second sub-coils  
20 through a first and second diodes connected in parallel  
so as to have opposed directions a deflecting current  
which is supplied to the first and second main coils by  
the first deflecting current supply portion.

2. A deflecting yoke apparatus according to  
25 claim 1, wherein the first deflecting current supply  
portion is configured to connect the first and second  
main coils in series between first and second terminals

to which a predetermined voltage is applied, and

the second deflecting current supply portion is configured to connect the first sub-coil, a parallel circuit of the first and second diodes, a series  
5 circuit of the second sub-coil and a resistor in parallel between the first and second terminals.

3. A deflecting yoke apparatus according to claim 1, wherein the first main coil and the first sub-coil are wound around the core by using  
10 a continuous conducting wire, and the second main coil and the second sub-coil are wound around the core by using a continuous conducting wire.

4. A deflecting yoke apparatus according to claim 3, wherein the first main coil and the first  
15 sub-coil are wound around the core in such a manner that a winding trailing end of the first sub-coil becomes continuous with a winding start end of the first main coil, and the second main coil and the second sub-coil are wound around the core in such  
20 a manner that a winding trailing end of the second sub-coil becomes continuous with a winding start end of the second main coil.

5. A deflecting yoke apparatus according to claim 3, wherein the first main coil and the first  
25 sub-coil are wound around the core in such a manner that a winding trailing end of the first main coil becomes continuous with a winding start end of the

first sub-coil, and the second main coil and the second  
sub-coil are wound around the core in such a manner  
that a winding trailing end of the second main coil  
becomes continuous with a winding start end of the  
5 second sub-coil.

6. A deflecting yoke apparatus according to  
claim 3, wherein the first deflecting current supply  
portion is configured to connect the first and second  
main coils in series between first and second terminals  
10 to which a predetermined voltage is applied, and

the second deflecting current supply portion is  
configured to connect the first sub-coil, a parallel  
circuit of the first and second diodes, a series  
circuit of the second sub-coil and a resistor in  
15 parallel between the first and second main coils.

7. A deflecting yoke apparatus according to  
claim 1, 2, 3, 4, 5 or 6, wherein the first main coil  
and the first sub-coil are respectively wound around  
parts of the core corresponding to an upper side in  
20 a screen in the vertical direction, and the second main  
coil and the second sub-coil are respectively wound  
around parts of the core corresponding a lower side in  
the screen in the vertical direction.

8. A deflecting yoke apparatus according to  
25 claim 7, wherein the first and second sub-coils are  
respectively wound around parts of the core  
corresponding to a vertical axis which divides

the screen in two in the horizontal direction.

9. A deflecting yoke apparatus according to claim 7, wherein the first and second sub-coils are wound around the wound first and second main coils.

5        10. A deflecting yoke apparatus according to claim 7, wherein the first and second main coils are wound around the wound first and second sub-coils.

11. A television receiver comprising:

10        a reception portion configured to receive a television broadcast signal;

      a signal processing portion configured to generate a video signal from the television broadcast signal received by the reception portion;

15        a deflecting current generation portion configured to generate a deflecting current from the television broadcast signal received by the reception portion;

      a deflecting yoke portion configured to generate a magnetic field which deflects electron beams by using the deflecting current generated by the deflecting current generation portion; and

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      a display portion configured to display the video signal generated by the signal processing portion as a screen image by deflecting the electron beams by using the magnetic field generated by the deflecting yoke portion,

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      the deflecting yoke portion comprising:

      first and second frame coils configured to correct

a vertical horizontal misconvergence in the screen;

first and second main coils which are wound around  
a core and configured to deflect in the vertical  
direction electron beams which have passed through a  
5 magnetic field generated by the first and second frame  
coils;

first and second sub-coils which are wound around  
the core and configured to deflect in the vertical  
direction the electron beams which have passed through  
10 the magnetic field generated by the first and second  
frame coils;

a first deflecting current supply portion  
configured to pass a serriform deflecting current to  
the first and second main coils; and

15 a second deflecting current supply portion  
configured to supply to the first and second sub-coils  
through first and second diodes connected in parallel  
so as to have opposed directions a deflecting current  
which is supplied to the first and second main coils by  
20 the first deflecting current supply portion.

12. A television receiver according to claim 11,  
wherein the first deflecting current supply portion is  
configured to connect the first and second main coils  
in series between first and second terminals to which  
25 a predetermined voltage is applied, and

the second deflecting current supply portion is  
configured to connect the first sub-coil, a parallel

circuit of the first and second diodes, a series circuit of the second sub-coil and a resistor in parallel between the first and second terminals.

13. A television receiver according to claim 11,  
5 wherein the first main coil and the first sub-coil are wound around the core by using a continuous conducting wire, and the second main coil and the second sub-coil are wound around the core by using a continuous conducting wire.

10 14. A television receiver according to claim 13, wherein the first main coil and the first sub-coil are wound around the core in such a manner that a winding trailing end of the first sub-coil becomes continuous with a winding start end of the first main coil, and  
15 the second main coil and the second sub-coil are wound around the core in such a manner that a winding trailing end of the second sub-coil becomes continuous with a trailing start end of the second main coil.

15 15. A television receiver according to claim 13, wherein the first main coil and the first sub-coil are wound around the core in such a manner that a winding trailing end of the first main coil becomes continuous with a winding start end of the first sub-coil, and  
20 the second main coil and the second sub-coil are wound around the core in such a manner that a winding  
25 trailing end of the second main coil becomes continuous with a winding start end of the second sub-coil.

16. A television receiver according to claim 13,  
wherein the first deflecting current supply portion is  
configured to connect the first and second main coils  
in series between first and second terminals to which  
5 a predetermined voltage is applied, and

the second deflecting current supply portion is  
configured to connect the first sub-coil, a parallel  
circuit of the first and second diodes, a series  
circuit of the second sub-coil and a resistor in  
10 parallel between the first and second main coils.

17. A television receiver according to claim 11,  
12, 13, 14, 15 or 16, wherein the first main coil and  
the first sub-coil are respectively wound around parts  
of the core corresponding to an upper side in a screen  
15 in the vertical direction, and the second main coil and  
the second sub-coil are respectively wound around parts  
of the core corresponding to a lower side in the screen  
in the vertical direction.

18. A television receiver according to claim 17,  
20 wherein the first and second sub-coils are respectively  
wound around parts of the core corresponding to  
a vertical axis which divides the screen in two in  
the horizontal direction.

19. A television receiver according to claim 17,  
25 wherein the first and second sub-coils are wound around  
the wound first and second main coils.

20. A television receiver according to claim 17,

wherein the first and second main coils are wound  
around the wound first and second sub-coils.